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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,082	11/28/2001	John Charles Clark	57254US002	6097
32692	7590	09/29/2004		
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427				
			EXAMINER PIZIALI, ANDREW T	
			ART UNIT 1771	PAPER NUMBER

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/997,082

Applicant(s)

CLARK ET AL.

Examiner

Andrew T Piziali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 1-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/28/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group II, claims 10-19, in the reply filed on 8/23/2004, is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 10-16 and 18-19 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,331,224 to Seko et al. (hereinafter referred to as Seko).

Regarding claims 10-16 and 18-19, Seko discloses a hydrophobic carbon fiber construction made by a process comprising immersing a carbon fiber construction (carbon fibers and pulp) in an aqueous dispersion of highly fluorinated polymer (PTFE), drying the resultant carbon fiber construction, and heating (sintering) the resultant carbon fiber construction, whereby the PTFE particles are fixed on the surfaces of the carbon fibers (see entire document including column 5, lines 44 through column 7, line 61). Seko discloses that when the carbon fiber construction is immersed in the PTFE particle dispersed dilute solution, the pulp absorbs the water as the dispersant for the PTFE particle dispersed liquid. Together with this water the

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PTFE particles adhere to the pulp. Upon baking the resultant carbon fiber construction the pulp is removed and the PTFE particles that were especially carried in the spaces that the pulp occupied adhere to the surfaces of the carbon fibers resulting in a carbon fiber construction with a high PTFE particle content on the surfaces of the carbon fibers (column 7, lines 16-29).

Considering the high PTFE content on the surfaces of the carbon fibers, it appears that the article taught by the prior art is identical to the claimed article. Absent a showing to the contrary, it is the examiner's position that the article of the applied prior art is identical to or only slightly different than the claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show obvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983). The applied prior art either anticipated or strongly suggested the claimed subject matter. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with the applied prior art.

Regarding claim 18, Seko discloses that the carbon fiber construction can be a non-woven carbon fiber construction (column 5, lines 37-36)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,331,224 to Seko (as applied to claims 10-16 and 18-19 above) in view of any one of USPN 6,723,464 to Tabata et al. (hereinafter referred to as Tabata), USPN 6,713,424 to Stumper et al. (hereinafter referred to as Stumper), USPN 6,350,423 to Aoyama, or USPN 6,127,058 to Pratt et al. (hereinafter referred to as Pratt).

Seko discloses that the carbon fiber construction may be a non-woven carbon fiber construction (column 5, lines 37-36), but Seko does not specifically mention making the carbon fiber construction a woven construction. Tabata (paragraph bridging columns 2 and 3), Stumper (paragraph bridging columns 8 and 9), Aoyama (paragraph bridging columns 14 and 15), and Pratt (paragraph bridging columns 2 and 3) each disclose that typical carbon fiber constructions include woven carbon fiber constructions. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the carbon fiber construction from any suitable carbon fiber construction, such as a woven carbon fiber construction, as taught by Tabata, Stumper, Aoyama, or Pratt, because it is within the general skill of a worker in the art to select a known construction on the basis of its suitability.

Response to Arguments

6. Applicant's arguments filed 8/23/2004 have been fully considered but they are not persuasive.

The applicant asserts that a comparison of Example 1 (Figures 1 and 2) versus Example 2C (Figures 3 and 4) illustrates that the product made according to the method of the present invention has distinct and much improved characteristics over the prior art. The examiner acknowledges the distinction between Example 1 and Example 2C, wherein Example 1 has increased uniformity and increased PTFE content, but Example 2C is not representative of the teachings of Seko. For example, Example 2C does not mention the use of pulp.

Seko discloses a hydrophobic carbon fiber construction made by a process comprising immersing a carbon fiber construction (carbon fibers and pulp) in an aqueous dispersion of highly fluorinated polymer (PTFE), drying the resultant carbon fiber construction, and heating (sintering) the resultant carbon fiber construction, whereby the PTFE particles are fixed on the surfaces of the carbon fibers (see entire document including column 5, lines 44 through column 7, line 61). Seko discloses that when the carbon fiber construction is immersed in the PTFE particle dispersed dilute solution, the pulp absorbs the water as the dispersant for the PTFE particle dispersed liquid. Together with this water the PTFE particles adhere to the pulp. Upon baking the resultant carbon fiber construction the pulp is removed and the PTFE particles that were especially carried in the spaces that the pulp occupied adhere to the surfaces of the carbon fibers resulting in a carbon fiber construction with a high PTFE particle content on the surfaces of the carbon fibers (column 7, lines 16-29). Considering the high PTFE content on the surfaces

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of the carbon fibers, it appears that the article taught by the prior art is identical to the claimed article.

The applicant has failed to show, or attempt to show, that the claimed hydrophobic carbon fiber construction is patentably distinct over the hydrophobic carbon fiber construction taught by Seko.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

atp

g-3 9/22/04
ANDREW T. PIZALI
PATENT EXAMINER

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